

### **WHAT IS CLAIMED IS:**

1. A reflow device for ball screw, in which provided with recirculating path, the recirculating path serving to turn moving direction of rolling balls, the reflow device can be fixed to screw nut assembly and  
5 integrally combined with screw nut, so as to allow the rolling balls to roll cyclically;

the reflow device including hard portion and soft portion, rolling balls entering the reflow device will be surrounded by the soft portion, the hard portion combine with the soft portion, so as to increase the  
10 strength of the reflow device, the collision of the rolling balls can be substantially buffered and absorbed by the soft portion, such that the caused vibration and noise can be effectively reduced.

2. The reflow device for ball screw as claimed in claim 1, wherein in the soft portion of the reflow device is provided with  
15 extending edge connecting to the recirculating path, so as to confine rolling balls moving in the recirculating path.

3. The reflow device for ball screw as claimed in claim 1, wherein the soft portion of the reflow device can be made of thermoplastic elastic material, such that the vibration and noise reduction  
20 of the reflow device can be substantially improved.

4. The reflow device for ball screw as claimed in claim 1, wherein the hardness of the material of the soft portion is 35D-63D.

5. The reflow device for ball screw as claimed in claim 1,

wherein the tensile stress of the material of the soft portion is 10.33MPa-41MPa.

6. The reflow device for ball screw as claimed in claim 1,  
wherein the Flexural modulus of the soft portion at normal atmospheric  
5 temperature is 30MPa-330MPa.

7. The reflow device for ball screw as claimed in claim 1,  
wherein the hard portion of the reflow device is made of metal.

8. The reflow device for ball screw as claimed in claim 1,  
wherein the hard portion of the reflow device is made of polyacetal  
10 material.